UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,409	01/03/2002	Michael Allen Yudkowsky	42390p13063	7057

8791	7590	04/19/2005	EXAMINER

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER
ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/038,409	YUDKOWSKY, MICHAEL ALLEN
		Examiner	**Art Unit**
		Angela A Armstrong	2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 January 2005</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-30* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on January 20, 2005, PROSECUTION IS HEREBY

    ˙REOPENED. New grounds of rejection are set forth below.

    To avoid abandonment of the application, appellant must exercise one of the following

two options:

    (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

    (2) request reinstatement of the appeal.

    If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a

    prior Office action.

3. Claims 1-12 and 14-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

    Goronzy et al (EP 1022725 A1) in view of Murveit (US Patent No. 6,766,295)

    Goronzy discloses a system for the selection of acoustic models using speaker

verification.

4.   Regarding claim 1, Goronzy discloses determining an identity of a speaker through a
networked work system at col. 3, lines 1-9 and 35-46, since the networked system (col. 3, lines
2-3) checks the identity of the speaker every time the speaker changes, which requires use of
some form of identification information to output to the verification module (4). Additionally,
Goronzy discloses attempting to locate, based on the identity of the speaker, a voice model for
speaker, at col. 3, lines 53-58; and retrieving from a storage area the voice model for the speaker
if the voice model for the speaker is located, at col. 3, line 53 continuing to col. 4, line 2.

        Goronzy does not provide specific details of how the speech recognition and/or speaker
verification is implemented within a networked system. However, providing speech recognition
and/or speaker verification with a network was well known in the art.

        Murveit teaches adaptation of a speech recognition system across multiple remote
sessions with a speaker in which for each speaker to remotely access the speech recognition
system a modified acoustic model is formed and stored with the speaker's unique identification
(col. 2, line 3 to col. 3, line 5) via a communications network, local area network, or wide area
network (Figure 2; col. 3, lines 27-39). Murveit teaches the system is advantageous in that as
the user accesses and uses the system; the acoustic model is adapted to more accurately reflect
the speaker thereby improving the accuracy of speech recognition for a speech recognition
system.

        Therefore, it would have been obvious to one of ordinary skill at the time of the invention
to implement the networked recognition and adaptation system of Murveit in the system of
Goronzy, so as to provide improved speech recognition accuracy for users of applications
though remote communications systems.

5.   Regarding claim 2, Goronzy discloses the voice model comprises a speaker dependent

voice model at col. 3, line 53 continuing to col. 4, line 2.

6.   Regarding claim 3, Goronzy and disclose wherein determining the identity of the speaker

over the network comprises using identification information received from the speaker over the

network to determine the identity of the speaker, at col. 3, line 1 continuing to col. 4, line 2.

7.   Regarding claim 4, Goronzy discloses receiving from a device in the network identifying

data regarding the speaker, at col. 3, line 39 continuing to col. 4, line 2; determining the identity

of the speaker based on the identifying data regarding the speaker, at col. 3, line 39 continuing to

col. 4, line 2.

8.   Regarding claim 5, Goronzy discloses wherein the storage area comprises an internal

storage area containing speaker-dependent voice models for multiple persons, at col. 3, line 58

continuing to col. 4, line 2.

9.   Regarding claim 6, Goronzy discloses wherein the storage area comprises an external

storage area accessible over the network, at col. 3, line 58 continuing to col. 4, line 2.

10.   Regarding claim 7, Goronzy discloses wherein the output data comprise phonemes, at

col. 3, line 39.

11.   Regarding claim 8, Goronzy discloses receiving an utterance from the speaker at col. 3,

lines 39-43; using the voice model to extract phonemes from the utterance at col. 3, lines 39-52;

and transmitting the phonemes over the network to the speech-recognition system, at col. 3, lines

39-43.

12.   Regarding claim 9, Goronzy discloses wherein the utterance comprises one or both of the

vocalized words and vocalized sounds, at col. 3, lines 39-43.

13.   Regarding claim 10, Goronzy discloses receiving from the speech recognition system

contents of a recognized utterance of the speaker, at col. 3, lines 43-58; revising the voice model

for the speaker based on the contents of the recognized utterance, at col. 3, lines 53-58; col. 4,

lines 30-40.

14.   Regarding claim 11, Goronzy discloses wherein the output data comprise a voice model

for the speaker, at col. 3, lines 53-58; col. 4, lines 30-40.

15.   Regarding claim 12, Goronzy discloses further comprising transmitting the voice model

over the network to the speech-recognition system, at col. 3, lines 53-58.

16.   Regarding claim 14, Goronzy discloses retrieving a speaker-independent voice model if

failing to locate the voice model for the speaker, at col. 4, lines 30-40; receiving an utterance

from the speaker, at col. 4, lines 19-21; using the speaker-independent voice model to extract

phonemes from the utterance, at col. 3, lines 53-58; transmitting the phonemes over the network

to a speech-recognition system, at col. 3, lines 43-52; receiving from the speech-recognition

system contents of a recognized utterance of the speaker, at col. 3, lines 46-58 and col. 4, lines

17-40; and generating a voice model for the speaker based on the contents of the recognized

utterance, at col. 4, lines 17-40.

17.   Regarding claims 15-30 claims 15-30 are similar in scope and content to claims 1-12 and

14 and are therefore rejected under similar rationale.

18.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goronzy and

Murveit in view of Ellis et al, "Tandem Acoustic Modeling in Large Vocabulary Recognition",

(ICASSP '01). 2001 IEEE International Conference on Acoustics, Speech, and Signal

Processing, 2001 Proceedings, vol. 1, pages 517-520.

19.   Regarding claim 13, Goronzy and Murveit do teach implementation of Aurora feature

extraction. However, implementation of Aurora features was well known in the art.

In a similar field of endeavor, Ellis teaches a system of tandem acoustic modeling in a

large vocabulary recognition system, and specifically describes the advantages of using Aurora

data in a recognition system since the system involves recognizing data in a wide range of noisy

backgrounds.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention

to modify the system of Goronzy to implement Aurora feature processing, for the purpose of

providing a recognition system that is able to recognize data in noisy backgrounds, as taught by

Ellis.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Angela A Armstrong whose telephone number is 571-272-7598.

The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela A Armstrong
Examiner
Art Unit 2654

AAA
April 13, 2005